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09/401,874

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(FILE 'HOME' ENTERED AT 13:50:36 ON 19 JUL 2001)

     FILE 'USPATFULL' ENTERED AT 13:51:11 ON 19 JUL 2001
L1         109 SEA COMMUNICAT? (5A) TARGET DEVICE#
L2           0 SEA TARGET DEVICE# (5A) (ACTIVE NEIGHBOR)
L3           0 SEA TARGET DEVICE# (P) (ACTIVE NEIGHBOR)
L4          27 SEA (TARGET (1A)(DEVICE# OR UNIT#)) (5A) ((FAIL? OR ERROR# OR
               TROUBLE OR PROBLEM)(1A)(DEVICE# OR UNIT#))
L5           5 SEA L1 AND L4
               D 1-5
               D 1-5 KWIC
L6       16645 SEA (714/?)/NCL
L7           1 SEA L5 AND L6
               D
               D KWIC
               D FP
L8        8742 SEA (IDENTIFY? OR INDICAT?)(P)(FAIL? OR FAULT? OR PROBLEM OR
               ERROR# OR TROUBLE) (P) NETWORK
L9           2 SEA L4 AND L8
               D 1-2
               D KWIC 1-2
L10          0 SEA L9 AND L1
L11          9 SEA L8 AND L1
L12          7 SEA L5 OR L7 OR L9
L13          9 SEA L11 NOT L12
               D 1-9
               D 1-9 KWIC


FILE HOME

FILE USPATFULL
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 19 Jul 2001 (20010719/PD)
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>>> (IPC) Manuals, editions 1-6, in the /IC1, /IC2, /IC3, /IC4,     <<<
>>> /IC5, and /IC (/IC6) fields, respectively.  The thesauri in     <<<
>>> the /IC5 and /IC fields include the corresponding catchword     <<<
>>> terms from the IPC subject headings and subheadings.            <<<

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TRO
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L6        16645 S (714/?)/NCL
L7            1 S L5 AND L6
L8         8742 S (IDENTIFY? OR INDICAT?)(P)(FAIL? OR FAULT? OR PROBLEM OR
ERRO

=> s l4 and l8

L9           2 L4 AND L8

=> d 1-2


L9   ANSWER 1 OF 2  USPATFULL
AN     1999:5604  USPATFULL
TI     Computer network with devices/paths having redundant links
IN     Kimball, Karen, Sacramento, CA, United States
       Albrecht, Alan, Granite Bay, CA, United States
PA     Hewlett-Packard Company, Palo Alto, CA, United States (U.S.
corporation)
PI     US 5859959               19990112
AI     US 1996-639605           19960429 (8)
DT     Utility
FS     Granted
LN.CNT 657
INCL   INCLM: 395/182.020
       INCLS: 395/200.690; 370/216.000
NCL    NCLM:  714/004.000
       NCLS:  370/216.000; 709/239.000
IC     [6]
       ICM: G01K031-08
EXF    395/180; 395/181; 395/182.01; 395/182.02; 395/200.68; 395/200.69;
       371/68.2; 371/68.1; 371/20.1; 326/9; 326/10; 370/216; 370/227; 370/228

L9   ANSWER 2 OF 2  USPATFULL
AN     87:87934  USPATFULL
TI     System protocol for composite shift keying communication system
IN     Lewis, Kenneth A., Ridgefield, CT, United States
       Alpern, Alan N., Manhattan, NY, United States
       Frank, Andrew C., Danbury, CT, United States
       Ross, Stuart E., Danbury, CT, United States
PA     GridComm, Inc., Danbury, CT, United States (U.S. corporation)
PI     US 4715045               19871222
AI     US 1986-840497           19860317 (6)
RLI    Continuation-in-part of Ser. No. US 1984-650777, filed on 13 Sep 1984,
       now patented, Pat. No. US 4577333
DT     Utility
FS     Granted
LN.CNT 1872
INCL   INCLM: 375/058.000
       INCLS: 375/048.000; 375/091.000; 375/104.000; 370/082.000; 329/112.000;
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332/022.000

NCL NCLM: 375/285.[illegible]

NCLS: 329/316.000; 332/100.000; 370/527.000; 37[illegible]75.000; 375/337.000; 375/351.000

IC [4]

ICM: H04B015-00

ICS: H04L027-10; H04J003-16

EXF 375/7; 375/8; 375/58; 375/45; 375/48; 375/51; 375/62; 375/66; 375/88; 375/89; 375/91; 375/104; 370/69.1; 370/124; 370/82; 370/83; 455/62; 371/28; 371/32; 332/21; 332/22; 332/23R; 329/112; 329/135; 329/136

=> d kwic 1-2

L9 ANSWER 1 OF 2 USPATFULL

SUMM . . . exchange of network packets with a specific device, and requires both devices to have a network protocol stack. If the **target device fails** to respond to the packets, that device or its connecting cables are presumed to be inactive. Switching over to the. . .

SUMM This second solution can **indicate** whether the instigating device's immediate neighbor approves of its configuration but, to prevent **network** loops, the redundant connection cannot be tested without disrupting the main connection. The ability to respond to a **trouble** condition is also slower with this method than with the first method due to round-trip packet propagation time and the possibility of the target device being temporarily busy, which must be accounted for before a **failure** can be determined.

DETD In alternative embodiments of the invention, an SNMP **network** trap 58 **indicating** the link **failure problem** may be sent out if the system includes a **network** protocol stack 56. Because the standby link is degraded, the system sets the hardware component to mode B so that. . .

DETD . . . standby link appears to be better than the main link, the system switches over to the standby link after collecting **failure** information to help the user. If the links appear to be the same or if the main link is still better than the standby link, the system does not switch over but may still collect the **failure** information if the user has not already been informed of such a **failure**. The user is informed either when a previously good link is lost, or if the **failure** of the main link has not been reported since monitoring began. The system captures a snapshot of the reason for **failure**, using the criteria described above for the initial standby link **failure** and, if the system includes a **network** protocol stack, an SNMP **network** trap **indicating** the link **failure problem** is sent.

DETD . . . may also result in the system making a change to the hardware component's operating mode, and may also result in **failure** information being supplied to the user. If the standby link is fully trained, ie. 802.12 aLinkStatus management object value was Standby and the hardware component was in mode A, and if the hardware component's TonesReceived status **indicates** that full training has been lost, the system sets the hardware component into mode B (degraded mode) and collects **failure** information for the user and, optionally, also sends out an SNMP **network** trap **indicating** the **failure**. Once the hardware component is in mode B, no further worsening of the standby link's status is of interest so. . .

L5 ANSWER 1 OF 5 USPATFULL
AN 2001:87735 USPATFULL
TI Method and structure for automated switching between multiple contexts in a storage subsystem target device
IN Born, Richard M., Fort Collins, CO, United States
Ellis, Jackson L., Fort Collins, CO, United States
Noeldner, David R., Fort Collins, CO, United States
PA LSI Logic Corporation, Milpitas, CA, United States (U.S. corporation)
PI US 6247040 B1 20010612
AI US 1996-720393 19960930 (8)
DT Utility
FS GRANTED
LN.CNT 1591
INCL INCLM: 709/103.000
INCLS: 709/100.000; 709/102.000; 709/107.000; 709/108.000; 711/100.000; 710/264.000
NCL NCLM: 709/103.000
NCLS: 709/100.000; 709/102.000; 709/107.000; 709/108.000; 710/264.000; 711/100.000
IC [7]
ICM: G06F009-00
EXF 395/650; 395/181; 395/894; 395/678; 364/200; 709/100; 709/108; 709/102; 709/103; 709/107; 711/100; 710/264

L5 ANSWER 2 OF 5 USPATFULL
AN 2001:16097 USPATFULL
TI Protocol acknowledgment between homogeneous system
IN Gregory, Peter R., Medina, WA, United States
Sample, Ian, Seattle, WA, United States
Lucas, Shawn Michael, Kenmore, WA, United States
Ding, Jie H., Redmond, WA, United States
Boyce, David Matthew, Kent, WA, United States
Walters, James Floyd, Seattle, WA, United States
PA Bsquare Corporation, Bellevue, WA, United States (U.S. corporation)
PI US 6182246 B1 20010130
AI US 2000-588104 20000531 (9)
RLI Continuation-in-part of Ser. No. US 2000-489308, filed on 21 Jan 2000
PRAI US 1999-137629 19990604 (60)
US 1999-116824 19990121 (60)
DT Utility
FS Granted
LN.CNT 922
INCL INCLM: 714/038.000
INCLS: 714/046.000; 714/738.000
NCL NCLM: 714/038.000
NCLS: 714/046.000; 714/738.000
IC [7]
ICM: G06F011-263
EXF 714/38; 714/46; 714/33; 714/39; 714/738; 714/742; 703/17; 703/20; 703/21

L5 ANSWER 3 OF 5 USPATFULL
AN 2001:16033 USPATFULL
TI Intelligent input/output **target device communication** and exception handling
IN Bradley, Mark W., Boulder, CO, United States
VonStamwitz, Paul J., Mountain View, CA, United States

Sterling, Kyle D., Pleasanton, CA, United States
Rameshkumar, Ch[illegible]mbara, Fremont, CA, United States
PA Adaptec, Inc., Milpitas, CA, United States (U.S. corporation)
PI US 6182182 B1 20010130
AI US 1998-181712 19981028 (9)
DT Utility
FS Granted
LN.CNT 869
INCL INCLM: 710/129.000
INCLS: 710/100.000; 710/130.000; 710/128.000
NCL NCLM: 710/129.000
NCLS: 710/100.000; 710/128.000; 710/130.000
IC [7]
ICM: G06F013-38
EXF 710/100; 710/129; 710/130; 710/128

L5 ANSWER 4 OF 5 USPATFULL
AN 2000:154950 USPATFULL
TI Method and structure for independent disk and host transfer in a
storage
subsystem target device
IN Born, Richard M., Fort Collins, CO, United States
Ellis, Jackson L., Fort Collins, CO, United States
Noeldner, David R., Fort Collins, CO, United States
PA LSI Logic Corporation, Milpitas, CA, United States (U.S. corporation)
PI US 6148326 20001114
AI US 1996-719830 19960930 (8)
DT Utility
FS Granted
LN.CNT 1333
INCL INCLM: 709/108.000
INCLS: 709/100.000
NCL NCLM: 709/108.000
NCLS: 709/100.000
IC [7]
ICM: G06F003-00
ICS: G06F009-00; G06F013-00
EXF 395/678; 395/642; 395/835; 395/826; 395/876; 395/877; 709/100; 709/102;
709/103; 709/108; 710/50; 710/225; 710/245; 710/5; 710/129; 712/225

L5 ANSWER 5 OF 5 USPATFULL
AN 2000:81852 USPATFULL
TI Method and structure for switching multiple contexts in storage
subsystem target device
IN Born, Richard M., Fort Collins, CO, United States
Ellis, Jackson L., Fort Collins, CO, United States
Springberg, David M., Fort Collins, CO, United States
Noeldner, David R., Fort Collins, CO, United States
Weston-Lewis, Graeme M., Fort Collins, CO, United States
PA LSI Logic Corporation, Milpitas, CA, United States (U.S. corporation)
PI US 6081849 20000627
AI US 1996-724385 19961001 (8)
DT Utility
FS Granted
LN.CNT 1447
INCL INCLM: 710/007.000
INCLS: 710/020.000; 709/005.000; 709/009.000
NCL NCLM: 710/007.000
NCLS: 709/321.000; 710/020.000
IC [7]
ICM: G06F009-30
ICS: G06F009-40; G06F013-14
EXF 395/821; 395/825; 395/670; 395/827; 395/678; 395/840; 395/674; 710/1;
710/5; 710/7; 710/20; 709/1; 709/5; 709/9

=> d 1-5 kwic

L5 ANSWER 1 OF 5 USPATFULL
SUMM . . . of the storage devices to which the initiator device directs an
I/O request. The bus over which the initiator and **target device communicate** is referred to herein as the host channel.
SUMM Though the target device is incapable of responding to the first initiated command sequence, typical **target devices** also **fail** to respond to other commands which could be processed without requiring use of the busy disk channel. Target devices, in. . .

L5 ANSWER 2 OF 5 USPATFULL
AB A testing and validating software program on a host computer is provided
having a graphical user interface program, an engine **communicating** with a **target device** and responding to command from the graphical user interface, a plurality of test suites having at least one test for. . .
SUMM . . . as a client/server application. A graphical user interface (GUI) interacts with a small application, CEHarness.exe, which is running on a **target device**. Because this **communication** may occur over Ethernet, at least one host may run suites against at least one target device.
SUMM The O/S Validator generates useful error information when a **target device fails** a test. While the suites are running, results are displayed in a plurality of dynamically created
log windows as well. . .
DRWD FIG. 5.0 is a block diagram showing the present invention essentially as
depicted in FIG. 4.0 except showing **communication** by the **target device** with the O/S Validator 1 at the host via Ethernet means.
DETD . . . The Engine 3 execution is simple: a command line is received and processed, establishing the execution socket connection to the **target device**, opening the pipe for **communication** with the GUI 2, reading the test suite files 5, and subsequently executing the tests in three phases, PreExecution, Execution,. . .
CLM What is claimed is:
. . . computer, wherein said program comprises a graphical user interface program means for interfacing with a user, an engine means for **communicating** with said **target device** and responding to command from said graphical user interface, a plurality of
test suites comprising at least one test for. . .
. . . computer, wherein said program comprises a graphical user interface program means for interfacing with a user, an engine means for **communicating** with said **target device** and responding to command from said graphical user interface, a plurality of
test suites comprising at least one test for. . .

L5 ANSWER 3 OF 5 USPATFULL
TI Intelligent input/output **target device communication** and exception handling
AB . . . interface transport. In this implementation, the system also includes an exception handling operating system module (EOSM) driver that is in **communication** with the silicon specific **target device** and the block storage operating system

module for efficiently handling event exceptions.

SUMM This invention relates generally to communication between host computer systems and peripheral devices, and more particularly to methods for efficiently **communicating** with **target devices** and exception handling in the Intelligent Input/Output (I.sub.2 O) architecture environment.

SUMM . . . implementation has the downside of significantly increasing the cost of implementing the I.sub.2 O architecture messaging scheme to simply effectuate **communication** with the **target device** driver 110. Therefore, when I.sub.2 O architecture messaging is desired, a user of a computer system will be required not. . .

SUMM . . . PCI interface transport. In this preferred embodiment, the system further includes an exception operating system module driver that is in **communication** with the silicon specific **target device** and the block storage operating system module.

SUMM . . . a reply. In this preferred embodiment, the system also includes an exception operating system module (OSM) driver that is in **communication** with the silicon-specific **target device** and the block storage operating system. The exception operating system module driver is preferably configured to observe the I.sub.2 O. . .

DETD . . . from the SCSI peripheral device 218 (i.e., a hard disk drive or the like), that I.sub.2 O message would be **communicated** to the **target device** 204 HISM and then **communicated** to the silicon circuitry and firmware module 216 in accordance with the proper translation scheme. The silicon circuitry and firmware. . .

CLM What is claimed is:

. . . device without implementing an input/output processor as recited in claim 15, further comprising: an exception operating system module driver in **communication** with the silicon specific **target device** and the block storage operating system module.

. . . silicon specific target device as recited in claim 27, further comprising: an exception operating system module driver that is in **communication** with the silicon-specific **target device** and the block storage operating system, the exception operating system module driver is configured to observe I.sub.2 O message requests. . .

. . . claim 28, further comprising: a hardware interface module-sequencer dialog for handling trouble shooting of an error experienced by the silicon-specific **target device**, the **trouble** shooting configured to perform register level write and read operations to detect and correct the error.

L5 ANSWER 4 OF 5 USPATFULL

SUMM . . . of the storage devices to which the initiator device directs an I/O request. The bus over which the initiator and **target device communicate** is referred to herein as the host channel.

SUMM Though the target device is incapable of responding to the first initiated command sequence, typical **target devices** also **fail** to respond to other commands which could be processed without requiring use of the busy disk channel. In other words,. . .

SUMM Though this architecture allows for improved utilization of the resources in the **target device**, a **problem** arises in assuring maximum utilization of the disk channel. While the

disk channel is processing disk transfers on behalf of. . .

CLM What is claimed is:
. . . for storing an inactive context corresponding to an initiator device generated command; a second set of registers in said storage **target device** controller in **communication** with said first set of registers and configured for storing an active context corresponding to present operation of said host. . .

L5 ANSWER 5 OF 5 USPATFULL

SUMM . . . of the storage devices to which the initiator device directs an I/O request. The bus over which the initiator and **target device communicate** is referred to herein as the host channel.

SUMM Though the target device is incapable of responding to the first initiated command sequence, typical **target devices** also **fail** to respond to other commands which could be processed without requiring use of the busy disk channel. In other words,. . .

SUMM . . . finite state machine model of the present invention may be implemented in circuits independent of the microprocessor(s) used for overall **target device** control and **communications**. This finite state machine model therefore reduces the microprocessor overhead required for managing multiple contexts. Specifically, this aspect of the. . .